

Using XML to Web Enable SpecsIntact

SpecsIntact Interagency Configuration
Control and Coordinating Board Meeting
February 3-4, 2004
Kennedy Space Center, FL

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SpecsIntact on the Web

- Vision for SpecsIntact
- XML and the Web
- Discussions
- Observations
- Recommendations

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Vision for SpecsIntact

- SpecsIntact web version
 - Projected in 1990s for next major SI release following current 32-bit version
 - Access construction specs and submittal data anywhere via internet
 - Remotely editing specs possible
- Links with other applications (CAD)
- XML is the enabling technology

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XML and the Web

- XML is now a mainstream technology
 - Rapidly expanding capabilities and benefits
- Key web development tool
 - Typically used in conjunction with web server software to transform to HTML

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XML and the Web

- Nearly universal XML software support
 - Level of support varies considerably
 - Most web browsers, including Internet Explorer and Netscape, support XML content
 - Microsoft Visual Studio.net supports XML
- XML markup used widely
 - aecXML, IfcXML supported by International Alliance for Interoperability (IAI)

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XML and the Web

- XSL connects separate XML languages and documents
 - XSL is a powerful document processing tool
 - Excellent processing capabilities already developed and widely available in existing software applications
 - Often used to generate HTML from XML for web display

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XML and the Web

- SpecsIntact will soon be XML enabled
 - Expect completion for upcoming April NIBS release
 - New SpecsIntact software works with both formats simultaneously and transparently
 - Smoothly and transparently convert to and from existing SGML format and new XML format
 - Easily toggled back and forth
 - Section Schema development is complete

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XML and the Web

- SpecsIntact will soon be XML enabled
 - All SpecsIntact Explorer, Editor, Processing Printing, and PDF Output changes ready
 - Non-Section schemas require minimal effort
 - Word output is only remaining software hurdle
 - New XML format incompatible with prior SpecsIntact software versions. Must release **and** distribute new software before releasing new specs
 - XSL Templates to follow

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Discussions

- **X.Systems**

- www.xsystems.com, Barry Schaeffer, principal
- Bill Brodt suggested X.Systems for VA spec document conversion effort
 - Convert Word documents to new SI XML format
 - Would outsource VA conversion construction engineering work to India

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Discussions

- **X.Systems**

- X.Systems suggested that they rewrite SpecsIntact as an XML web application
- Would use existing GSA Project Information Portal (PIP) as a prototype for new SpecsIntact software
- PIP is a project scheduling/management system
- X.Systems supports XML document editing using high-end* third party ArborText Editing tools
- Barry Schaeffer has yet to return any of our phone calls and e-mails

Discussions

- GSA
 - We independently contacted GSA to arrange to see GSA's PIP system (GSA intranet application)
 - We will preview PIP at A/E/C Systems Show (Feb. 18, Orlando)
 - We will also discuss GSA's specifications requirements with Stephen Hagan of GSA

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Discussions

- **IAI (International Alliance for Interoperability)**
 - www.iai-na.org
 - Developing “universal framework to enable and encourage information sharing and interoperability” throughout the building life cycle

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Discussions

- **IAI**

- Industry Foundation Classes (IFC)
 - ifcXML format envisioned for internet data sharing
 - Use Building Information Modeling (BIM)
 - Automate low-level tasks
 - Reduce errors and risk
 - Link graphical information with written documents
 - Generate specs automatically
 - aecXML derived from IFC
- We are pursuing aecXML technical committee membership

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Discussions

- Bhargava International
 - www.bhargavainternational.com, Umesh Bhargava, principal
 - Interested in developing application tying SpecsIntact Sections with CAD system
 - For internal use
 - For resale to third parties
 - Currently using Arcom's MasterSpec
 - Not satisfied
 - Impressed with UFGS technical content

Discussions

- Bhargava International
 - “SpecsIntact is light years ahead of MasterSpec”
 - We will provide him the SpecsIntact XML software and specs for initial testing and development
 - Needs alternate paragraph numbering formats from SpecsIntact
 - Would “throw MasterSpec away” if SpecsIntact provided industry standard paragraph numbering
 - Would prefer to see support for IAI’s Industrial Foundation Classes (IFC).
 - Not a requirement

Observations

- XML compliance greatly enhances and simplifies web development capabilities
 - Numerous third party tie-ins possible
 - CAD/Spec interoperability is only one of many possibilities
 - XML application support is widespread

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Observations

- Open XML document format creates opportunities with and for third parties:
 - InterSpec, LLC (e-Specs)
 - X.Systems
 - BSD, Inc. (SpecLink)
- SpecsIntact not the only possible solution
- Our goal is to remain the best solution

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Recommendations

- Release SpecsIntact XML software
- Release XML specs (date TBD)
- Evaluate requirements for web SI
 - Viewing
 - Editing
 - Processing and quality control
 - Publishing
 - New requirements (e.g., handheld PCs, security)

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Questions?

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